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Claims

[c1] 1. A frying apparatus, said frying apparatus comprising:
a container having an open top for holding foods and oil;
a lid covering on top of said container for closing up said open top of said container;
heating means for heating said foods and oil disposed inside said container;
stirring means installed inside said container for stirring foods;
a power-drive assembly operationally coupled with said stirring means for driving said stirring means through repeating stirring cycles; and
control means for automatically de-energizing said power-drive assembly near the end of each stirring cycle for a predetermined dwell period.

[c2] 2. A frying apparatus as defined in claim 1, wherein said control means includes transistor means for de-energizing said power-drive assembly when said transistor means is turned off and energizing said power-drive assembly when said transistor means is turned on.

[c3] 3. A frying apparatus as defined in claim 2, wherein said

control means includes capacitor timing means to determine said predetermined dwell period.

[c4] 4. A frying apparatus as defined in claim 3, wherein said control means includes switch means responsive to the position of said power-drive assembly for conditioning said capacitor timing means to bias said transistor means off for said predetermined dwell period near the end of each of said stirring cycles.

[c5] 5. A frying apparatus as defined in claim 2, wherein said control means includes variable resistor means connected to said transistor means for varying said predetermined dwell period.

[c6] 6. A frying apparatus as defined in claim 2, wherein said control means includes manually activated switch means for turning on said transistor means for providing continuously repeating stirring cycles without dwell periods.

[c7] 7. A frying apparatus, said frying apparatus comprising:

a container having an open top for holding foods and oil;

a lid covering on top of said container for closing up said open top of said container;

heating means for heating said foods and oil disposed inside said container;

stirring means installed inside said container for stirring foods;

a power-drive assembly operationally coupled with said stirring means for driving said stirring means through repeating stirring cycles; and

a venting device for exhausting cooking fumes.

[c8] 8. A frying apparatus as defined in claim 7, wherein said venting device includes filter means for cooking fume treatment.

[c9] 9. A frying apparatus as defined in claim 7, said frying apparatus further including a blowing device for forcing fresh air into said frying apparatus during the frying process, thereby, facilitating moisture removal from inside said frying apparatus.

[c10] 10. A frying apparatus as defined in claim 7, said frying apparatus further including control means for automatically de-energizing said power-drive assembly near the end of each stirring cycle for a predetermined dwell period.

[c11] 11. A frying apparatus as defined in claim 9, wherein said blowing device includes a one-way valve for preventing cooking fumes from escaping therethrough.

[c12] 12. A frying apparatus as defined in claim 9, said frying

apparatus further including control means for automatically de-energizing said power-drive assembly near the end of each stirring cycle for a predetermined dwell period.

[c13] 13. A frying apparatus as defined in claim 9, said frying apparatus further including control means, said control means dividing the blowing operation of said blowing device into repeating blowing cycles of predetermined length and automatically de-energizing said blowing device near the end of each blowing cycle for a predetermined dwell period.

[c14] 14. A frying apparatus, said frying apparatus comprising:

a container having an open top and an upstanding inner cylindrical wall for holding foods and oil;

a lid covering on top of said container for closing up said open top of said container;

heating means for heating said foods and oil disposed inside said container;

stirring means installed inside said container for stirring foods;

a power-drive assembly disposed below said container and operationally coupled with said stirring means for driving said stirring means through repeating stirring cycles; and

a coupling device having an inner cylindrical wall and

an outer cylindrical wall, engaged with each other on the upper portion thereof, wherein said outer cylindrical wall of said coupling device is routed over said upstanding inner cylindrical wall of said container and the lower portion of said outer cylindrical wall of said coupling device is engaged with said stirring means, and wherein said inner cylindrical wall of said coupling device includes a coupling element on the lower portion thereof for lockably receiving a drive shaft from said power-drive assembly.

[c15] 15. A frying apparatus as defined in claim 14, wherein said container includes co-rotation preventing means installed inside said container on the sidewall thereof for preventing food pieces from co-rotating with said stirring means, as said stirring means rotates.

[c16] 16. A frying apparatus as defined in claim 14, wherein said container includes supporting means installed on the inside bottom thereof for supporting said stirring means, thereby avoiding excessive scraping of said stirring means on the bottom of said container, reducing the friction therebetween, and prolonging the life of said stirring means.

[c17] 17. A frying apparatus as defined in claim 14, wherein said drive shaft includes supporting means installed on

the upper portion thereof for operationally supporting said drive shaft against said upstanding inner cylindrical wall of said container.

[c18] 18. A frying apparatus as defined in claim 14, said frying apparatus further including control means for automatically de-energizing said power-drive assembly near the end of each stirring cycle for a predetermined dwell period.

[c19] 19. A frying apparatus as defined in claim 14, said frying apparatus further including a basket having an open top and a central aperture on the bottom thereof removably receiving said upstanding inner cylindrical wall of said container for use to deep-fry foods.

[c20] 20. A frying apparatus, said frying apparatus comprising:

a container having an open top and a central aperture on the bottom thereof for holding foods and oil;

a lid covering on top of said container for closing up said open top of said container;

heating means for heating said foods and oil disposed inside said container;

stirring means installed inside said container for stirring foods;

a power-drive assembly disposed below said container and operationally coupled with said stirring

means for driving said stirring means through repeating stirring cycles, said power-drive assembly including a drive shaft threading through said central aperture of said container;
sealing means for sealing between the bottom of said container and said drive shaft; and
a coupling device having a hollow cylindrical lower portion, wherein said hollow cylindrical lower portion is engaged with said stirring means, and wherein said hollow cylindrical lower portion includes a coupling element for lockably receiving said drive shaft from said power-drive assembly.

[c21] 21. A frying apparatus as defined in claim 20, wherein said container includes co-rotation preventing means installed inside said container on the sidewall thereof for preventing food pieces from co-rotating with said stirring means, as said stirring means rotates.

[c22] 22. A frying apparatus as defined in claim 20, wherein said sealing means is installed inside said container at a predetermined height, such that for most applications of said frying apparatus said sealing means is above boiling oil or hot liquid, whereby the requirement on said sealing means is significantly reduced.

[c23] 23. A frying apparatus as defined in claim 20, wherein

said container includes supporting means installed on the inside bottom thereof for supporting said stirring means, thereby, avoiding excessive scraping of said stirring means on the bottom of said container, reducing the friction therebetween, and prolonging the life of said stirring means.

[c24] 24. A frying apparatus as defined in claim 20, said frying apparatus further including control means for automatically de-energizing said power-drive assembly near the end of each stirring cycle for a predetermined dwell period.

[c25] 25. A frying apparatus as defined in claim 20, said frying apparatus further including a basket having an open top and a central aperture on the bottom thereof removably receiving said drive shaft for use to deep-fry foods.

[c26] 26. A frying apparatus, said frying apparatus comprising:

a container having an open top, a closed bottom, and an upstanding central shaft installed on the central bottom thereof for holding foods and oil;

a lid covering on top of said container for closing up said open top of said container;

heating means for heating said foods and oil disposed inside said container;

stirring means installed inside said container for stir-

ring foods;

a power-drive assembly disposed above said container and operationally coupled with said stirring means for driving said stirring means through repeating stirring cycles; and

a coupling device having a hollow cylindrical lower portion for removably receiving said upstanding central shaft, wherein said hollow cylindrical lower portion of said coupling device is engaged with said stirring means, and wherein said coupling device includes a coupling element on the upper portion thereof for operationally transferring rotation power from said power-drive assembly to said stirring means.

[c27] 27. A frying apparatus as defined in claim 26, wherein said container includes co-rotation preventing means installed inside said container on the sidewall thereof for preventing food pieces from co-rotating with said stirring means, as said stirring means rotates.

[c28] 28. A frying apparatus as defined in claim 26, wherein said container includes supporting means installed on the inside bottom thereof for supporting said stirring means, thereby, avoiding excessive scraping of said stirring means on the bottom of said container, reducing the friction therebetween, and prolonging the life of said

stirring means.

[c29] 29. A frying apparatus as defined in claim 26, said frying apparatus further including control means for automatically de-energizing said power-drive assembly near the end of each stirring cycle for a predetermined dwell period.

[c30] 30. A frying apparatus as defined in claim 26, said frying apparatus further including a basket having an open top and a central aperture on the bottom thereof removably receiving said upstanding central shaft for use to deep-fry foods.